

PTO/SB/08A (10-96)
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Substitu	te for form 1449A/	РТО		Complete if Known		
				Application Number	09/896,221	
INF	DRMATIO	N DIS	CLOSURE	Filing Date	June 29, 2001	
STA	TEMENT	BY A	PPLICANT	First Named Inventor	Jason Gosior et. al.	
				Group Art Unit	2151	
	(use as many s	sheets as i	necessary)	Examiner Name		
Sheet	Sheet 1 of 5			Attorney Docket Number	RR-503	

			U.S. PATENT DOCU	JMENTS		
Examiner Initials	Cite No.1	U.S. Patent Document  Kind Code <sup>2</sup> (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
$\mathcal{P}$		4,646,236	Crockett et. al.	02-24-1987		
. /		5,276,847	Kohn	01-04-1994		
		5,357,617	Davis et. al.	10-18-1994		
		5,404,469	Chung et. al.	04-04-1995		
		5,546,593	Kimura et. al.	08-13-1996		
		5,734,921	Dapp et. al.	03-31-1998		
		5,754,871	Wilkinson et. al.	05-19-1998		
		5,761,523	Wilkinson et. al.	06-02-1998		
		5,828,894	Wilkinson et. al.	10-27-1998		
		5,835,705	Larsen et. al.	11-10-1998		
		5,878,241	Wilkinson et. al.	03-02-1999		
		5,907,702	Flynn et. al.	05-25-1999		
		5,923,872	Chrysos et. al.	07-13-1999		
		5,966,528	Wilkinson et. al.	10-12-1999		
		6,000,044	Chrysos et. al.	12-07-1999		
		6,018,759	Doing et. al.	01-25-2000		
		6,052,708	Flynn et. al.	04-18-2000		
		6,073,159	Emer et. al.	06-06-2000		
		6,076,157	Borkenhagen et. al.	06-13-2000		
4		6.094.715	Wilkinson et. al.	07-25-2000		

	FOREIGN PATENT DOCUMENTS									
	0:1-	F	oreign Patent Do	cument	$\Box$	Name of Patentee or	Date of Publication of	Pages, Columns, Lines,	Т	
Examiner Initials*	Cite No. <sup>1</sup>	Office <sup>3</sup>	Number <sup>4</sup>	Kind Cod (if knowi		Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear		
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		6,101,569	Miyamoto et. al.	08-08-2000	
		6,105,127	Kimura et. al.	08-15-2000	
		6,134,653	Roy et. al.	10-17-2000	
		4,594,655	Hao et. al.	06-10-1986	
		4,636,942	Chen et. al.	01-13-1987	
		4,901,230	Chen et. al.	02-13-1990	
		4,985,827	Hamanaka et. al.	01-15-1991	
		5,353,418	Nikhil et. al.	10-04-1994	·
		5,430,850	Papadopoulos et.al.	07-04-1995	
		5,471,593	Branigin	11-28-1995	
		5,499,349	Nikhil et. al.	03-12-1996	
		5,560,029	Papadopoulos et. al.	09-24-1996	
		5,632,032	Ault et. al.	05-20-1997	
		5,666,535	Komori et. al.	09-09-1997	·
		5,721,920	Mak et. al.	02-24-1998	
		5,742,822	Motomura	04-21-1998	
		5,752,067	Wilkinson et. al.	05-12-1998	
		5,845,331	Carter et. al.	12-01-1998	
		5,867,725	Fung et. al.	02-02-1999	
75	)	5.872.963	Bitar et. al.	02-16-1999	

				FORE	IGN PATENT DOCUMENT	rs		
[		F	oreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines,	Т
Examiner Cite 1 Initials No.1	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear		
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STA	TEMENT	<b>BY AF</b>	PPLICANT	First Named Inventor	Jason Gosior et. al.		
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747 J		5,903,899	Steele, Jr.	05-11-1999	
$\Delta$		5,944,816	Dutton et. al.	08-31-1999	
$\Gamma'$		5,968,167	Whittaker et. al.	10-19-1999	
		6,003,123	Carter et. al.	12-14-1999	· ·
		6,088,788	Borkenhagen et. al.	07-11-2000	
		6,092,180	Anderson et. al.	07-18-2000	
		6,105,051	Borkenhagen et. al.	08-15-2000	
		6,105,074	Yokote	08-15-2000	
		6,138,140	Yokote	10-24-2000	
		6,148,396	Chrysos et. al.	11-14-2000	
		6,154,832	Maupin	11-28-2000	
		6,163,840	Chrysos et. al.	12-19-2000	
		6,182,210	Akkary et. al.	01-30-2001	
		6,195,748	Chrysos et. al.	02-27-2001	
		4,037,205	Edelberg et. al.	07-19-1977	
		4,448,543	Vail	05-15-1984	
		4,903,251	Chapman	02-20-1990	
		5,396,641	Iobst et. al.	03-07-1995	
1		5,475,631	Parkinson et. al.	12-12-1995	
		5,539,345	Hawkins	07-23-1996	<del></del>

				FORE	IGN PATENT DOCUMENT	rs		
Examiner	Cite	F	oreign Patent Do	cument Kind Code <sup>5</sup>	Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	
Initials*	No.1	Office <sup>3</sup> Number <sup>4</sup> (if known) Applicant of Cited Document		Cited Document Passages or Relevant Figures Appear				
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7	5,555,429	Parkinson et. al.	09-10-1996	
<b>V</b>	5,644,271	Mollov et. al.	07-01-1997	
	5,677,864	Chung	10-14-1997	
	5,678,021	Pawate et. al.	10-14-1997	
	5,684,807	Bianchini, Jr. et. al.	11-04-1997	
	5,692,193	Jagannathan et. al.	11-25-1997	
	5,751,987	Mahant-Shetti et. al.	05-12-1998	
	6,097,403	McMinn	08-01-2000	
	6,138,251	Murphy et. al.	10-24-2000	
	6,161,196	Tsai	12-12-2000	
1	6,226,738	Dowling	05-01-2001	
₩	09/843,178	Gosior et. al.		Filing Date-04-26-2001

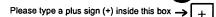
				FORE	IGN PATENT DOCUMENT	rs		
Examiner Initials*	Cite No. <sup>1</sup>	I	oreign Patent Do		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	
		Office <sup>3</sup>	Number <sup>4</sup> (if known)		Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T6
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OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, joumal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
4)		Iyer, Subramanian S. et. al., "Embedded DRAM Technology: Opportunities and Challenges," IEEE Spectrum, April 1999, Volume 36, Number 4, 21 pp.				
12)		Elliott, Duncan G., et. al., "Computational RAM: A Memory-SIMD Hybrid and its Application to DSP." Custom Integrated Circuits Conference, pp. 30.6.1-30.6.4, Boston, MA, May 1992.				
18		Elliott, Duncan G., et. al., "A PetaOp/s is Currently Feasible by Computing in RAM." PetaFLOPS Frontier Workshop, IEEE Symposium, McLean, VA, February 1995, 3 pp.				
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